SMOS

SEDLETSKIY, Ivan Dmitriyevich, professor; SHEVCHENKO, Ye.V., professor, redaktor

[Methods of determining colloid disperse minerals] Metody opredeleniia kolloidno-dispersnykh mineralov. [Kiev] Izd-vo Kievskogo gos.univ. im. T.G.Shevchenko, 1955. 155 p. (MIRA 9:3)
(Colloids)

SHEVCHENKO, Ye.V., doktor geol.-min.nauk

Method for determining the extent of humification of peat. Torf. prom. 36 no.3:26-29 '59. (MIRA 12:7)

1. Kiyevskiy institut inzhenerov vodnogo khozyaystva.
(Peat)

CHEREDNICHENKO, Aleksandr Ivanovich; SHEVCHENKO, Ye.V., prof., doktor geol.-mineral. nauk, otv. red.; ZAVIRYUKHINA, V.N. red.

[Tectonophysical conditions governing mineral transformation in solid rocks.] Tektonofizicheskie usloviia mineral'nykh preobrazovanii v tverdykh gornykh porodakh. Kiev, Naukova dumka, 1964. 183 p. (Akademiia nauk URSR. Instytut geologichnykh nauk. Trudy. Seriia geotektoniki, no.15)

(MIRA 17:12)

SHEVCHENKO, Ye.V.

Physicomathematical analysis of the rate of growth of minerals in small intrusions. Dokl. AN SSSR 162 no.2:432-435 My '65. (MIRA 18:5)

1. Institut geologicheskikh nauk AN UkrSSR. Submitted March 15, 1963.

CHEREDNICHENKO, Aleksandr Ivanovich; SHEVCHENKO, Ye.V., prof. doktor geol.-min. nauk, otv. red.; ZAVIRYUKHINA, V.N., red.

[Tectonic and physical conditions governing mineral transformations in solid rocks] Tektonofizicheskie usloviia mineral'nykh preobrazovanii v tverdykh gornykh porodakh. Kiev, Naukova dumka, 1964. 183 p.
(MIRA 18:8)

SHEVCHENKO, Yu.

Information. Avt. transp. 42 no.7:56-57 Jl '64.
(MIRA 17:11)

SHEVCHENKO, Yu.A.

Assembly-line production of new machinery for the drug industry. at the Zhdanov Machinery Plant. Med.prom. 12 no.7:64-65 Jl '58 (MIRA 11:8)
(DRUG INDUSTRY--EQUIPMENT AND SUPPLIES)

L 07357-67 EWT(1) SCTB DD

ACC NR: AP6012174 SOURCE CODE: UR/0413/66/000/007/0107/0107

AUTHORS: Artemenko, A. I.; Danilevskiy, M. G.; Kocherga, V. K.; Mukhin, V. A.; Nikolenko, I. L.; Filimonova, L. Ya.; Shevchenko, Yu. A.

37
B

ORG: none

TITLE: Mining isolating lifesaver. Class 61, No. 180491 [announced by Central Scientific Research Laboratory for Mining Rescue Work (Tsentral'naya nauchno-issledovatel'skaya laboratoriya po gornospasatel'nomu delu)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 107

TOPIC TAGS: life support equipment, mining engineering, air

ABSTRACT: This Author Certificate presents a mining isolating lifesaver containing a rechargeable cartridge, a breathing tube, a breathing bag, and a case (see Fig. 1). To insure the automatic performance of the starting assembly when the lid of the case is removed and the liquid of the starting ampule is set in a directed motion, the lifesaver is provided with a starting briquet, a rubber ampule with an internal blade for cutting it open, a striker pressed into the arch of the ampule, a spring, fixing balls, and a hood connected elastically to the lid of the case. To diminish the decomposition of the reagent containing oxygen in the rechargeable cartridge during transportation and wearing of the lifesaver, the rechargeable cartridge may

Card 1/2

UDC: 614.894.732

L 02357-67
ACC NR: AP6012174

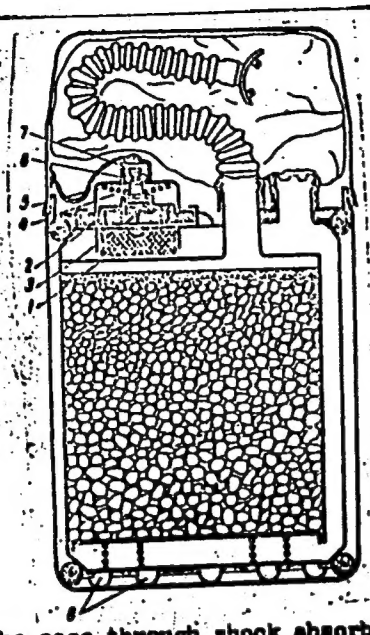

Fig. 1. 1 - starting briquet; 2 - rubber ampule; 3 - cutter; 4 - striker; 5 - spring; 6 - balls; 7 - hood; 8 - shock absorber

be fixed within the case through shock absorbers. The latter are made in the form of hollow spheres of an elastic material and are placed on a common axis. Orig. art. has: 1 figure.

SUB CODE: 06,08/ SUBM DATE: 04Sep64
Card 2/2 afs

ACC NR: AP7002420 SOURCE CODE: UR/0051/66/021/006/0741/0748

AUTHOR: Fugol', I. Ya.; Pakhomov, P. L.; Shevchenko, Yu. F.

ORG: none

TITLE: Spectroscopic investigation of decaying helium plasma at 20K

SOURCE: Optika i spektroskopiya, v. 21, no. 6, 1966, 741-748

TOPIC TAGS: helium plasma, plasma decay, plasma diffusion, metastable state

ABSTRACT:

The helium plasma was excited in a quartz tube submerged in liquid hydrogen (20.4K). The luminescence was recorded through the liquid hydrogen. The helium pressure was varied from 0.1 to 80 mm Hg. The concentration of metastable atoms in the afterglow was determined by the absorption of the 3889 Å line from an external source. The rate of pair collision, on which depends the decay of metastable atoms and the diffusion coefficent D at different pressure p of metastable atoms, was determined. The average value for Dp at 20K is $(Dp)_{aver} = 95$ $cm^2 \cdot sec^{-1} \cdot mm$ Hg. A comparison of results shows that below 77K the variation of the diffusion coefficient does not follow the classical dependence $Dp \sim \sqrt{T}$, a fact which is possibly linked with the effect of the quantum features of the diffusion process in helium at low

Card 1/2 UDC: 533.9 : 546.291

ACC NR: AP7002420

temperatures. The character of the afterglow of helium plasma at 20K is similar to the afterglow at 77K. The only intensive afterglow was that of the atomic lines He I. The duration of afterglow was 150—200 μsec. Orig. art. has: 26 formulas, 5 figures, and 3 tables.

SUB CODE: 20/ SUBM DATE: 10May65/ ORIG REF: 003/ OTH REF: 002/ ATD PRESS: 5112

Card 2/2

40373-66 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) AT/JD

ACC NR: AP6025263 SOURCE CODE: UR/0057/66/036/007/1312/1314

66
65
03

AUTHOR: Pakhomov, P.L.; Fugol', I. Ya.; Shevchenko, Yu.F.

ORG: none

TITLE: Temperature dependence of the diffusion cross section of metastable helium atoms in helium

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 7, 1312-1314

TOPIC TAGS: helium, metastable state, gas diffusion, plasma diffusion, particle cross section

ABSTRACT: The authors have measured the diffusion cross section (defined as v/3ND, where v is the mean atomic velocity, N is the gas density, and D is the diffusion constant) of metastable (2^3S_1) helium atoms in helium gas at 77, 64, and 20° K by a plasma technique that has been described in detail by I.Ya.Fugol', P.L.Pakhomov, and G.P. Reznikov (Opt. i spektr., 16, 941, 1964). Plasmas were produced by 40 MHz discharges in a quartz tube containing helium at pressures (reduced to room temperature) ranging from 0.1 to 1.0 mm Hg and their decay was followed for up to 1.5 millisec by recording the absorption of the 3889 Å $2^3S - 3^3P$ helium line. The diffusion constants, calculated from the exponential decay curves on the assumption that the plasmas decayed entirely by diffusion to the wall of the vessel, were inversely proportional to the pressure within the 15% experimental error. The measured diffusion cross sections

UDC: 533.9.07

Card 1/2

L 40373-66

ACC NR: AP6025263

were in good agreement with the theory of R.A.Buckingham and A.Dalgarno (Proc.Roy. Soc.,A213, 506, 1952). The diffusion cross section at 77° K (approximately 4.5 x 10^{-15} cm^2) was 50% lower than that found by A.V.Phelps and J.P.Molnar (Phys.Rev.,89, 1204, 1953). At 20° K the diffusion cross section was 5 x 10^{-15} cm^2. Orig. art. has: 5 formulas and 3 figures. [15]

SUB CODE: 20 SUBM DATE: 02Aug65 ORIG.REF: 001 OTH REF: 005

ATD PRESS: 5053

Card 2/2 MLP

BLOKH, G.A., doktor khimich. nauk, prof.; NEYMARK, I.Ye., doktor khimich. nauk, prof.; BORODUSHKINA. Kh.N., inzh.; BOGUSLAVSKIY, D.B., inzh.; SHEVCHENKO, Yu.G., inzh.

Molecular sieves and problems of rubber vulcanization. Izv. vys. ucheb. zav.; tekh. leg. prom. no.4:46-53 '63. (MIRA 16:10)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut (for Blokh). 2. Institut fizicheskoy khimii AN UkrSSR (for Neymark.) 3. Dnepropetrovskiy shinyy zavod (for Borodushkina, Boguslavskiy, Shevchenko). Rekomendovana kafedroy tekhnologii reziny Dnepropetrovskogo khimiko-tekhnologicheskogo instituta.

SHEVCHENKO, YU. G.

36837. O roli kory bolyshikh polusharny mozga v formirovanii boli. (Uslovnyye sosudistyye refleksy pri fantomiykh bolyakh). Soobshch. 1. Nevropatologiya i psikhiatriya, 1949, No. 6, c. 55-62

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

KAMINSKIY, S.D.; SHEVCHENKO, Yu. G.

Defective theory producing defective practice. Nevropat.psikhiat., Moskva 20 no.1:23-29 Jan-Feb 51. (CLML 20:6)

1. Prof.S.D.Kaminskiy; Dr. Medical Sciences Yu. G. Shevchenko.
2. Moscow.

Shevchenko, Yu. G.

SHEVCHENKO, Yu.G.

Production of cortical pain inhibition in foci of residual stimulation in the cerebral cortex. Nevropat. psikhiat., Moskva 20 no.6:41-49 Nov-Dec 51. (CIML 21:4)

1. Doctor Medical Sciences USSR. 2. Of the Laboratory of the Physiology and Pathology of Higher Nervous Activity (Head--Prof. S.D. Kaminskiy), Central Institute of Psychiatry of the Ministry of Public Health RSFSR.

SHEVCHENKO, Yu.G.; KUZNETSOVA, A.I.

Combined method of preparation of the brain and modification of stains for the study of cellular and fibrous systems. Arkh. anat., Moskva 29 no.4:83-89 July-Aug 1952. (CIML 23:2)

1. Of the Patho-Architectonic Laboratory (Head -- Doctor Medical Sciences Yu. G. Shevchenko), Central Institute of Psychiatry (Director -- Docent D. Ye. Melikhov), Ministry of Public Health RSFSR.

SHEVCHENKO, Yu. G.

SHEVCHENKO, Yu.G.

[Consequences of prefrontal leukotomy in schizophrenia; morphological changes in the brain] Posledstviia prefrontal'noi leikotomii pri shizofrenii; morfologicheskie izmeneniia golovnogo mozga. Moskva, Medgiz, 1954. 131 p. (MIRA 8:3)
(Brain--Surgery) (Schizophrenia)

SHEVCHENKO, Yu.G., doktor med.nauk

Individual and group variations in the structure of the cerebral cortex of the inferior parietal region in contemporary men. Vest.AMN SSSR 11 no.5:35-46 '56. (MIRA 12:10)

1. Iz Instituta antropologii Moskovskogo gosudarstvennogo universiteta.
(PARIETAL LOBE, anat. and histol.
structural variations in modern man)

SHEVCHENKO, Yu.G.

"Development of the central nervous system; ontogenesis and philogenesis of the cortex andsubcortical formations." Zhur. nevr.i psikh. 60 no.10:1384-1386 '60. (MIRA 14:1)
(BRAIN)

SHEVCHENKO, Yu. G.

"Osnovnyye napravleniya evolyutsii mozga primatov."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

SHEVCHENKO, Yu.M.

Operation of LPG-2-3000 draw works in exploratory drilling stations.
Neftianik 2 no.10:7-8 O '57. (MIRA 10:12)

1. Starshiy inzhener proizvodstvenno-tekhnicheskogo otdela tresta Tyumen'neftegeologiya.

(Winches)

83277

S/021/60/000/001/004/013
A158/A029

16.7300

AUTHOR: Shevchenko, Yu.M.

TITLE: Thermal Stresses in Disks in an Elastic-Plastic Stressed State With a Power Condition of Plasticity With Reinforcement

PERIODICAL: Dopovidi Akademiyi nauk Ukrayins'koyi Radyans'koyi Sotsialistychnoyi Respubliky, 1960, No. 1, pp. 27 - 31

TEXT: The author examines an elastic-plastic state in symmetrically heated [in conformity with the law $\varepsilon_t = \varepsilon_0 + \varepsilon_1\rho^n$, (2)] thin, solid disks of constant thickness. The dependence curve of the intensity of tangential stresses S on the intensity of the shift E (in the elastic-plastic regions) is approximated by the power function $S = KE^{\mu}$ (8), where K and μ are constants, depending on the material. Poisson's coefficient is assumed to be $\nu = 0.5$. The solution of the problem is reduced to the integration of a system of equations

$$\frac{\Phi}{\mu} R \frac{d\ln\xi}{dR} = -2\sin^2\varphi - \frac{nRn}{\mu\sqrt{\xi}} \sin(\varphi + \frac{\pi}{6}), \qquad (13)$$

with boundary conditions

$$\varphi = 0 \text{ when } R = 0 \text{ and } \varphi = -\frac{2}{3}\pi \text{ when } R = R_0. \qquad (17)$$

Card 1/2

SHEVCHENKO, Yu.M., starshiy inzh.

Using 2 1/2" tubing as drill pipe. Neftianik 6 no.8:8-9 Ag '61.
(MIRA 14:10)

1. Otdel bureniya Tyumenskogo geologicheskogo upravleniya.
(Oil well drilling—Equipment and supplies)

22673
S/198/61/007/002/002/004
D204/D303

24.4200 1103,1327,1109

AUTHOR: Shevchenko, Yu. M.,

TITLE: Application of Castigliano's variational method for stressing a thick-walled cylinder

PERIODICAL: Prykladna mekhanika, v. 7, no.2, 1961, 149-156

TEXT: In this work Castigliano's variational method is used to stress a thick-walled cylinder under the action of centripetal forces, uneven temperature and pressure loading p(z) kg/cm^2 on the outer surface. This method has recently been developed by M.M. Filonenko-Borodich (Ref 1: Zadacha O ravnovesii uprugogo parallelepi-peda pri zadannykh nagruzkakli na yego granyakh, PMM, XV, 2, 1951 and (Ref 4: O zadache lame dlya parallelepipeda v obshchem sluchaye poverkhnostnykh nagruzok, PMM, v XXI, 4, 1957) and his associates for space problems of the theory of el-asticity. The cylinder is bounded by two coaxial cylindrical surfaces of radii r_o and r_1 ($r_o > r_1$) and two planes z=0 and z=1. Cylindrical

Card 1/6

Application of Castigliano's variational . . .

relative coordinates are used $\varrho = \frac{r}{r_0}$; $\zeta = \frac{z}{r_0}$, and $\varrho_1 \leqslant \varrho \leqslant 1$; $0 \leqslant \zeta \leqslant \varepsilon$. (1.2)

where $\varrho_1 = \frac{r_1}{r_0}$; $\varepsilon = \frac{l}{r_0}$. (1.3) Temperature deformation αt is assumed to be

$$\alpha t = \sum_{j=0}^{n} (l_j + n_j \varrho^{\alpha_1} + m_j \varrho^{\alpha_2}) e^{\alpha_1 \zeta}, \qquad (1.4)$$

where l_j, n_j, m_j, α_1, α_2 and n_j - various constants which can be adjusted to approximate the actual oxisymmetrical temperature distribution. The boundary conditions are

$$\begin{aligned} &\sigma_r = p(\zeta), \quad \tau_{rz} = 0 \quad \text{при} \quad \varrho = 1; \\ &\sigma_r = 0, \quad \tau_{rz} = 0 \quad \text{при} \quad \varrho = \varrho_1; \\ &\sigma_z = 0, \quad \tau_{rz} = 0 \quad \text{при} \quad \zeta = 0 \text{ і } \zeta = \varepsilon. \end{aligned} \qquad (1.5)$$

Card 2/6

Application of Castigliano's variational . . .

To use Castigliano's variational method, the stress tensor will be given as a sum of the basic and correcting tensors. Components of the basis tensor should satisfy conditions (1.5) and given equilibrium equations. For the correcting tensor the boundary conditions are all equal to zero [p (ξ) = 0] and ω = 0. In addition, its components should have free terms to satisfy the condition that the following fuction should be a minimum

$$W = \pi r_0^3 \int_0^{\rho_1} \int_{\rho_1}^{1} \frac{1}{E} \{\sigma_r^2 + \sigma_\varphi^2 + \sigma_z^2 - 2\nu(\sigma_r\sigma_\varphi + \sigma_r\sigma_z + \sigma_\varphi\sigma_z) + 2(1+\nu)\tau_{rz}^2 + 2\alpha t E(\sigma_r + \sigma_\varphi + \sigma_z)\} \varrho d\varrho d\zeta, \quad (1.7)$$

Components of the correcting tensor, unlike those of the basic tensor, depend only on the shape of the body. In constructing the basic stress tensor it is assumed that in the central section σ_r and σ_φ are the same as in an infinitely long cylinder (for which

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Application of Castigiliano's variational . . .

ε_z = const.) and σ_z, τ_{rz} are equal to zero. The components are found separately for pressure loading, centrifugal effect and temperature effect. The correcting tensor σ_z and τ_{rz} and also corrects for the following: for deviation of p( ) from the linear law , for the effect of free ends of the cylinder and for the axial variation of temperature. To the first approximation the stress components are

$$\sigma_r = \sigma_r^{(0)} + \frac{1}{\varrho}\sin\frac{\pi(\varrho-\varrho_1)}{1-\varrho_1}\left(A_{10} + A_{11}\cos\frac{\pi\zeta}{\varepsilon} + A_{12}\cos\frac{2\pi\zeta}{\varepsilon}\right) +$$

$$+ \frac{A_{22}}{\varrho}\sin\frac{2\pi(\varrho-\varrho_1)}{1-\varrho_1}\cos\frac{2\pi\zeta}{\varepsilon}; \qquad (4.1)$$

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Application of Castigliano's variational . . .

$$\sigma_\varphi = \sigma_\varphi^{(0)} + \frac{\pi}{1-\varrho_1}\cos\frac{\pi(\varrho-\varrho_1)}{1-\varrho_1}\left(A_{10} + A_{11}\cos\frac{\pi\zeta}{\varepsilon} + A_{12}\cos\frac{2\pi\zeta}{\varepsilon}\right) +$$

$$+ \frac{2A_{22}\pi}{1-\varrho_1}\cos\frac{2\pi(\varrho-\varrho_1)}{1-\varrho_1}\cos\frac{2\pi\zeta}{\varepsilon} + \varrho\sin\frac{\pi(\varrho-\varrho_1)}{1-\varrho_1}[B_{10}P_0'(\zeta) + B_{11}P_1'(\zeta)];$$

$$\sigma_z = \sigma_z^{(0)} - \left[\frac{1}{\varrho}\sin\frac{\pi(\varrho-\varrho_1)}{1-\varrho_1} + \frac{\pi}{1-\varrho_1}\cos\frac{\pi(\varrho-\varrho_1)}{1-\varrho_1}\right][B_{10}P_0(\zeta) + B_{11}P_1(\zeta)]; \quad (4.1)$$

$$\tau_{rz} = \tau_{rz}^{(0)} + \sin\frac{\pi(\varrho-\varrho_1)}{1-\varrho_1}[B_{10}P_0'(\zeta) + B_{11}P_1'(\zeta)].$$

Here, index (o) denotes total components of the basic tensor which depends on the conditions to which the cylinder is subjected. Parameters A_{10} . . . . . B_{11} are obtained from a system of six equations of the form

$$\frac{\partial W}{\partial A_{mn}} = 0; \quad \frac{\partial W}{\partial B_{mn}} = 0. \quad (3.6)$$

Card 5/6

22673

S/198/61/007/002/002/004
D204/D303

Application of Castigliano's variational . . .

As an example thermal stresses are found for a solid disc. From the given temperature, distribution constants in Eq.1.4, are determined for each section and Eq. 3.6 solved. Then stresses are found by means of the derived formulae. Two solutions are given which satisfy consistency conditions; in one, those on the cylindrical surface are satisfied exactly, but those on the free ends approximately, and vice versa in the other. When loads from the face ends are removed the two solutions converge. There are four figures, 1 table and 8 Soviet-bloc references.

ASSOCIATION: Kyyivs'kyy politekhnichnyy instytut (Kiev Polytechnic Institute)

SUBMITTED: December 15, 1958

Card 6/6

SHEVCHENKO, Yu. M.

Scientific conference on thermal stresses in structural elements.
Prykl. mekh. 8 no.6:683-684 '62. (MIRA 15:10)

(Thermal stresses)

SHEVCHENKO, Yu. N.: Master Tech Sci (diss) -- "The axial-symmetry problem of thermal stresses with a variable modulus of elasticity". Kiev, 1958. 12 pp (Acad Sci Ukr SSR, Inst of Construction Mechanics), 150 copies (KL, No 7, 1959, 127)

SHEVCHENKO, Yu.N. [Shevchenko, IU.M.] (Kiyev)

Thermal stresses in thick-walled cylinders in case of changes of elastic modulus along the genertrix of cylinders. Prykl. mekh. 4 no.4:401-410 '58. (MIRA 11:12)

1.Kiyevskiy politekhnicheskiy institut.
(Elastic plates and shells) (Thermal stresses)

SOV-21-58-10-6/27

AUTHOR: Shevchenko, Yu.N.

TITLE: A General Solution of the Theory of Elasticity Problem with a Variable Modulus (Obshcheye resheniye zadachi teorii uprugosti pri peremennom module)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 10, pp 1054 - 1057 (USSR)

ABSTRACT: The author gives a general solution of the following equation of equilibrium in displacements with the modulus of elasticity varying according to an exponential law

$$\Delta\vec{u} + \frac{1}{1-2\nu}\operatorname{grad}\operatorname{div}\vec{u} + \frac{2\nu}{1-2\nu}\operatorname{grad}(\ln G)\operatorname{div}\vec{u} + (\operatorname{grad}\ln G\operatorname{grad})\vec{u} + \operatorname{grad}(\operatorname{grad}\ln G\vec{u}) - (\vec{u}\operatorname{grad})\operatorname{grad}\ln G = \frac{2(1+\nu)}{(1-2\nu)G}\operatorname{grad}(\alpha t G) - \frac{\vec{K}}{G},$$

where $\vec{u}$ is the displacement vector; ν is a Poisson coefficient; G is elasticity modulus of the second kind; αt is temperature deformation $\vec{K}$ is the vector of space forces, and Δ ( ) is Laplacian operator. In solving the problem the author makes use of the Lur'ye method [Ref.1]. In the case of the axisymmetrical problem, the solution obtained makes it pos-

Card 1/2

A General Solution of the Theory of Elasticity Problem with a Variable Modulus

sible to take into account the change in the modulus of elasticity along the generatrix only. In the case of a constant modulus the solutions found pass over into the known solutions of the theory of elasticity, such as those of B.G. Galerkin [Ref.2], G.D. Grodskiy and A. Lyav. There are 2 Soviet references.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiyev Polytechnical Institute)

PRESENTED: By Member of the AS UkrSSR, G.N. Savin

SUBMITTED: May 21, 1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Elasticity--Theory 2. Poisson integrals 3. Operators (Mathematics)

PHASE I BOOK EXPLOITATION SOV/4178

Akademiya nauk Ukrayins'koyi RSR. Instytut budivel'noyi mekhaniky

Zadachi termopruzhnosti v energomashynobuduvanni (Problems of Thermoelasticity in Power-Machinery Construction) Kyyiv, 1960. 176 p. 1,000 copies printed.

Ed. of Publishing House: T.K. Remennik; Resp. Ed.: H.M. Savin, Academician, Academy of Sciences UkrSSR; Tech. Ed.: O.M. Lysovets'.

PURPOSE: This book is intended for turbine designers.

COVERAGE: This book is a collection of 8 Ukrainian articles based on work under the general supervision of A.D. Kovalenko. Each article has a short summary in Russian. The object of the study is to test turbine elements for stress conditions, especially those due to nonuniform heating. References accompany each article.

TABLE OF CONTENTS:

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AVAILABLE: Library of Congress

Card 3/3

AC/nl/sfm
10/4/60

S/124/62/000/009/025/026
A057/A101

1.2510

AUTHOR: Shevchenko, Yu. N.

TITLE: Bending of a disc at non-uniform heating and power conditions of plasticity with strengthening

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 9, 1962, 28, abstract 9V198 (In collection: "Teplovyye napryazheniya v elementakh turbomashin. v. 1", Kiyev, AS UkrSSR, 1961, 103 - 109)

TEXT: The problem of bending of a uniform disc with constant thickness under the influence of an axisymmetric temperature field which changes along the thickness of the disc according to the linear law, and along the radius - to the power law, is discussed. The material of the disc is supposed to be non-compressible; the curve of dependence of the intensity of tangential stresses upon intensity of shear deformation in elastic and plastic region is approximated by a power function. By generalization of the solution for uniformly heated discs at analogous properties of the material (V. V. Sokolovskiy, Theory of plasticity, Moscow, Gostekhizdat, 1950) the bending moments and parameters of curvature in

Card 1/2

Bending of a disc at...

S/124/62/000/009/025/026
A057/A101

the radial and peripheral directions are represented in the form of trigonometric functions, satisfying a system of two non-linear differential equations of first order. The obtained equations and boundary conditions coincide with the corresponding equations of the stressed state of the disc at its nonuniform heating along the radius only. Results of one numerical solution are presented. The problem is also generalized to the case of a temperature field which effects not only bending, but also expansion of the middle plane of the disc.

[Abstracter's note: Complete translation]

B. F. Shorr

Card 2/2

SHEVCHENKO, Yu.N. [Shevchenko, IU.M.] (Kiyev)

Using Castigliano's variational method in determining the stressed state of a thick-walled cylinder. Prykl.mekh. 7 no.2:149-156 '61. (MIRA 14:4)

1. Kiyevskiy politekhnicheskiy institut.
(Elastic plates and shells)

SHEVCHENKO, Yu. N. [Shevchenko, IU.M.]

Scientific conference on thermal stresses in elements of turbomachines. Prykl.mekh. 7 no.6:686-687 '61. (MIRA 14:11)

(Thermal stresses)

SHEVCHENKO, Yu.N. [Shevchenko, IU.M.]

Theorem of the reciprocity of work and variational equations in the theory of elasticity. Dop. AN URSR no.2:179-182 '62. (MIRA 15:2)

1. Institut mekhaniki AN USSR. Predstavleno akademikom AN USSR A.D.Kovalenko.

(Elasticity)

SHEVCHENKO, YU. N.

20

PHASE I BOOK EXPLOITATION SOV/6086

Nauchnoye soveshchaniye po teplovym napryazheniyam v elementakh turbomashin. 2d, Kiyev, 1961.

Teplovyye napryazheniya v elementakh turbomashin; doklady nauchnogo soveshchaniya., vyp. 2 (Thermal Stresses in Turbomachine Parts; Reports of the Scientific Conference, no. 2). Kiyev, Izd-vo AN UkrSSR, 1962. 174 p. 1800 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut mekhaniki.

Resp. Ed.: A. D. Kovalenko, Academician, Academy of Sciences UkrSSR; Ed.: T. K. Remennik; Tech. Ed.: A. M. Lisovets.

PURPOSE: This collection of articles is intended for scientific workers and turbine designers.

Card 1/6

Thermal Stresses (Cont.)

COVERAGE: The book contains 18 articles dealing with investigations connected with thermal stresses in turbine components. Individual articles discuss thermoelasticity, thermoplasticity, thermal conductivity, and temperature fields. No personalities are mentioned. References accompany 17 articles. The conference recommended broadening the theoretical and experimental investigations of aerothermoelastic and aerothermoplastic problems, the development of investigations of general problems of the theory of thermoelasticity and thermoplasticity based on the thermodynamic principles of reversible and nonreversible processes, the development of effective calculation methods for thermal stresses taking into account plastic deformations and creep in thin- and thick-walled structural members under stationary and nonstationary operating conditions, the development of experimental-research methods for thermometry and tensiometry in connection with modern operational conditions of mechanical structures, and the broadening of investigations of problems in the thermostrength of structures, especially of those operating under conditions of frequent and sharp temperature changes.

SHEVCHENKO, Yu.N. [Shevchenko, IU.M.]

Fourth scientific conference on thermal stresses in structural elements. Prykl. mekh. 9 no.6:686-688 '63. (MIRA 16:12)

GRIGORENKO, Ya.M.; SHEVCHENKO, Yu.N.

Anatolii Dmitrievich Kovalenko, 1905- ; on the occasion of his 60th birthday. Prikl. mekh. 1 no.1:133-137 '65.

(MIRA 18:5)

L 15617-65 EWT(d)/EWT(m)/EWP(w)/EWA(d) Pc-4 IJP(c) EM

ACCESSION NR: AP5006454 S/0021/65/000/002/0180/0184

AUTHOR: Shevchenko, Yu. M. (Shevchenko, Yu. N.)

TITLE: A differential equation of a disc with an asymmetrical profile

SOURCE: AN UkrRSR. Dopovidi, no. 2, 1965, 180-184

TOPIC TAGS: elasticity theory, axial symmetry, asymmetrical disc, temperature field, surface tension, centrifugal force

ABSTRACT: The article deals with the stressed state of a disc with asymmetrical profile, such as a round plate of variable thickness, situated in an axially symmetrical three-dimensional temperature field, under the influence of axially-symmetrical surface tension and centrifugal forces. The theory is simplified by neglecting certain factors which become small when the thickness of the disc is much smaller than its radius. The differential equations are derived on the basis of the quations of the axially symmetrical elasticity theory and the Kirchhoff-Love hypothesis on the inveriance of the normal element. This report was presented by A. D. Kovalenko. Orig. art. has: 1 figure and 23 formulas.

Card 1/2

L 45617-65

ACCESSION NR: AP5006454

ASSOCIATION: Instytut mekhaniky AN URSR [Institut mekhaniki AN UkrSSR] (Institute of Mechanics, AN UkrSSR)

SUBMITTED: 09Jan64 ENCL: 00 SUB CODE: ME, GP

NR REF SOV: 001 OTHER: 000

Card 2/2

L 13641-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(j)/T/EWP(t)/... SOURCE CODE: UR/0198/65/001/010/01...

ACC NR: AP6000243

EWP(k) IJP(c) JD/WW/EM/JXT(PG)/RM

AUTHOR: Shevchenko, Yu. N.

ORG: none

TITLE: Sixth scientific conference on thermal stresses in elements of structures

SOURCE: Prikladnaya mekhanika, v. 1, no. 10, 1965, 141-142

TOPIC TAGS: solid mechanical property, mechanics, physics conference, thermal stress, structure stability, stress analysis, plastic deformation, creep

ABSTRACT: The Sixth Scientific Conference on Thermal Stresses in Members of Structures took place at Kiev from 6 to 12 June 1965. The conference was organized by the Scientific Council for Scientific Principles of Strength and Plasticity in the Department of Mechanics and Control Processes, Academy of Sciences USSR; the Institute of Mechanics, Academy of Sciences USSR; and the Kiev State University imeni Shevchenko. About 300 representatives of scientific societies, schools of higher education, and industrial enterprises from Moscow, Leningrad, Kiev, Riga, Khar'kov, Novosibirsk, L'vov, Chelyabinsk, and other cities of the USSR took part in the conference, and 53 papers concerning the following fields were delivered and discussed: (1) general problems in designing nonuniformly heated structures with plasticity and creep taken into consideration--7 papers; (2) theory of generation of thermal and residual stresses during

Card 1/3

...with strong heating (welding, casting, heat ... thermoplasticity of disks--3 papers; (4) ... creep of shells of revolution under ... loading in ...ature fields--6 papers; (5) ... elastic mechanics associated with ... of structures made of polymers and glass-reinforced plastics--8 papers; (6) dynamic and coupled problems of thermoelasticity--7 papers; (7) problems in progressive thermal buckling and the stability of thin-walled structures in the presence of steady and unsteady temperature fields--6 papers; (8) methods and means for experimental investigations of strains and stresses--3 papers; (9) various special problems in thermoelasticity, mainly those associated with gas turbines--7 papers. The chairman of the organizational committee, A. D. Kovalenko, opened the conference and gave a brief survey of trends and developments in the fields of science represented in the papers submitted. The resolutions of the conference include recommendations concerning further trends in investigations in the fields of thermoplasticity, dynamics, and coupled and three-dimensional thermoelasticity problems. The following are pointed out as primary problems: the experimental investigation of the effect of complex loading under nonuniform heating; the development of methods for solving thermoplasticity problems based on modern theories of plasticity; the development of methods for evaluating the strength of structures subject to temperature changes, particularly of those based on the theory of accomodation in investigating the residual stresses caused by manufacturing processes; the development of methods for solving rheological problems associated with the behavior of structures made of

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L 13641-66

ACC NR: AP6000243

different materials, including synthetics and others. The next scientific conference on thermal stresses is planned for next year and will be devoted mainly to problems of thermoplasticity. [ATD Press: 4162-F]

SUB CODE: 20 / SUBM DATE: none

jw

Card 3/3

SHEVCHENKO, Yu.P., inzh.

Compensation of the frequency characteristics of the ShRPS-IV linear amplifier. Avtom., telem. i sviaz' 7 no.11:36-37 N '63. (MIRA 16:12)

1. Sal'skaya distantsiya signalizatsii i svyazi Severo-Kavkazskoy dorogi.

MAL'NEV, A.F.; KREMENCHUGSKIY, L.S.; BEREZKO, B.N.; SHEVTSOV, L.N.; BOGDEVICH, A.G.; KIRILLOV, G.M.; CHASHECHNIKOVA, I.T.; YARMOLENKO, N.A.; OFENGENDEN, R.G.; SERMAN, V.Z.; DALYUK, Yu.A.; BEREZIN, F.N.; KONENKO, L.D.; SHALEYKO, M.A.; SHEVCHENKO, Yu.S.; STOLYAROV, V.A.; KIRILLOV, G.M.; BOGDEVICH, S.F.; LYSENKO, V.T.; BRASHKIN, N.A.; SKRIPNIK, Yu.A.; GRESHCHENKO, Ye.V.; TUZ, R.M.; SERPILIN, K.L.; GAPCHENKO, L.M.

Abstracts of completed research works. Avtom. i prib. no.3:90-91 Jl-S '62. (MIRA 16:2)

1. Institut fiziki AN UkrSSR (for all except Skripnik, Greshchenko, Tuz. Serpilin, Gapchenko). 2. Kiyevskiy politekhnicheskiy institut (for Skripnik, Greshchenko, Tuz, Serpilin, Gapchenko).

(Research)

L 38554-65 EWG(j)/EWG(r)/EWT(l)/FS(v)-3/EWG(v)/EWG(a)-2/EWG(c) Pe-5 DD
ACCESSION NR: AP5008774 S/0240/65/000/003/0022/0026

AUTHOR: Shevchenko, Yu. S.

TITLE: Dynamics of some functional changes in the organism due to vibration

SOURCE: Gigiyena i sanitariya, no. 3, 1965, 22-26

TOPIC TAGS: vibration, biological effect, basal metabolism, hemodynamics, oxygen consumption, respiration, nervous system

ABSTRACT: The author exposed white rats for 4 hr a day to 40—42-cps vibrations with an amplitude of 0.4—0.45 mm. A special cage was attached to the vibration stand. The average duration of the experiments was 6 weeks. Reactions to vibration were studied as a function of the state of the central nervous system, the peripheral vasculature, and the blood, and determinations were made of oxygen consumption, basal metabolism, weight, and rectal temperature. After the first day, oxygen consumption increased from 1348 ± 73 to 1507 ± 43 ml/kg/hr. There was no increase on the second day. By the third week, oxygen consumption began to fall, and from the fourth through the sixth week, consumption after vibration was comparable to normal morning levels. No significant differences between morning and evening consumption levels were observed in the control group. This would indicate that vibration does

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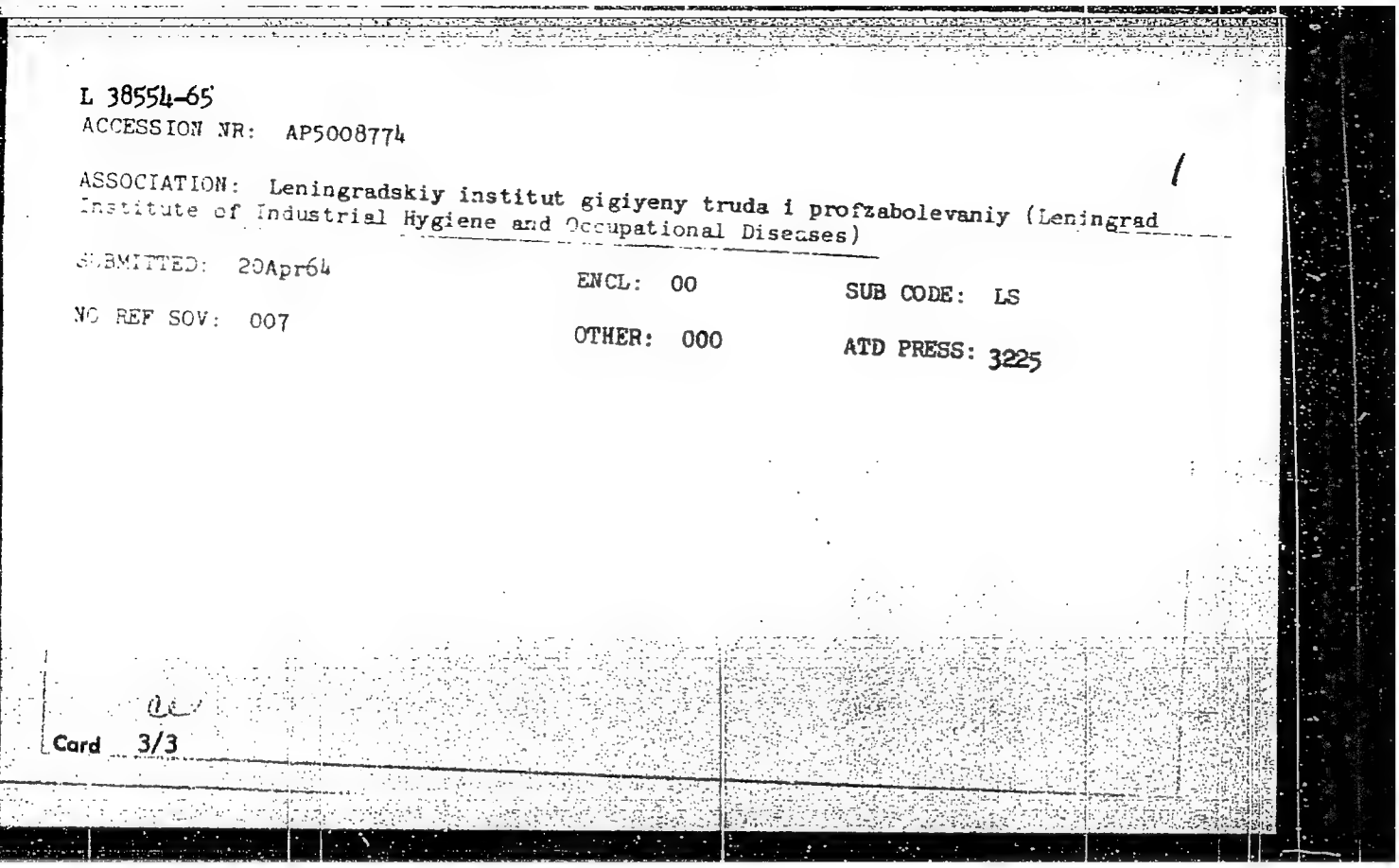
L 38554-65
ACCESSION NR: AP5008774 O

not lead to permanent changes in oxygen consumption and that rats are able to compensate for vibration. Initial changes in body weight due to vibration were most noticeable during the first week. After one week, mean body weight fell from 274 ± 7.6 g to 243 ± 7.1 g. By the sixth week it had increased to 263 ± 9.8 g. In general, the greatest discrepancy between experimental and control weight was during the fourth week. No changes in rectal temperature due to vibration [illegible]. Similarly no significant hematological shifts due to vibration were [illegible] slight increase in the mean hemoglobin content in the experimental group after two tests. This decrease in hemoglobin content in the blood of the [illegible] animals persisted throughout the entire experiment. The early lowered [illegible] shift attests to the rapid effect of vibration [illegible] system. The data indicated that vibration depresses adrenal [illegible] increase in vitamin [illegible] In general, the reaction [illegible] initial [illegible] Basal metabolism [illegible] irritability and vasodilation [illegible] positive inhibition. The vascular reaction indicated that this [illegible] most sensitive to the effects of vibration. Orig. art. has: 3 tables. (CD)

Card 2/3



L 38554-65
ACCESSION NR: AP5008774

ASSOCIATION: Leningradskiy institut gigiyeny truda i profzabolevaniy (Leningrad Institute of Industrial Hygiene and Occupational Diseases)

SUBMITTED: 20Apr64 ENCL: 00 SUB CODE: LS

NO REF SOV: 007 OTHER: 000 ATD PRESS: 3225

Card 3/3

ALEKSANDROV, Grigoriy Petrovich[Aleksandrov, H.P.]; DUDNIK, Vera Nikolayevna[Dudnyk, V.M.]; KITYK, Vasiliy Ivanovich; SURZHOK, Grigoriy Dmitriyevich [Surzhok, H.D.]. Prinimal uchastiye SHEVCHENKO, Yu.V.; PORFIR'YEV, V.B., akademik, otv. red.; MEL'NIK, G.F.[Mel'nyk, H.F.], red. izd-va; DAKHNO, Yu.B., tekhn. red.

[Kalussite, a new potassium fertilizer]Kalushyt - nove kaliine dobryvo. [By]G.P.Aleksandrov ta inshi. Kyiv, Vyd-vo Akad.nauk URSR, 1962. 133 p. (MIRA 16:3)

1. Akademiya nauk Ukr. SSR (for Porfir'yev)
(Ukraine--Kalussite)

ALEKSANDROV, G.P.; SHUTER, Ya.N.; SHEVCHENKO, Yu.V.

Volumetric determination of cobalt by means of potassium permanganate. Ukr. khim. zhur. 28 no. 7:871-874 '62. (MIRA 15:12)

1. Institut geologii poleznykh iskopayemykh.
(Cobalt—Analysis) (Potassium permanganate)

ALEKSANDROV, G.P.; DEMKIV, O.T.; SHEVCHENKO, Yu.V.; SHEREMET'YEV, S.Kh.

Flame-photometric determination of strontium in a methane-air flame using the SF-5 spectrophotometer. Ukr.khim.zhur. 29 no.6:623-627 '63. (MIRA 16:9)

1. Institut geologii goryuchikh iskopayemykh AN UkrSSR.
(Strontium--Spectra) (Flame photometry)

ALEKSANDROV, G.P.; SHEVCHENKO, Yu.V.

Composition and properties of mixed hexanitrocobaltates of rare-earth elements with potassium. Ukr. khim. zhur. 30 no.1:12-18 '64. (MIRA 17:6)

1. Institut geologii goryuchikh iskopayemykh AN UkrSSR.

ALEKSANDROV, G.P. [deceased]; SHEVCHENKO, Yu.V.

Effect of temperature on the yield and composition of mixed hexanitrocobaltates of rare earth elements with potassium. Ukr. khim. zhur. 31 no.10:1040-1045 '65. (MIRA 19:1)

1. Institut geologii i geokhimii goryuchikh iskopayemykh AN UkrSSR. Submitted May 28, 1964.

L 09773-67 - EWT(m) SOTB DD/GD

ACC NR: AT6036466 SOURCE CODE: UR/0000/66/000/000/0010/0011

AUTHOR: Agadzhanyan, N.A.; Kalinichenko, I. R.; Kuznetsov, A. G.; Lapikhova, I. I.; Nikulina, G. A.; Osipova, M. M.; Reutova, M. B.; Sergiyenko, A. V.; Shevchenko, Yu.V.

ORG: none

23
B+1

TITLE: Effect of rapidly increasing hypoxia on the human organism [Paper presented at conference on problems of space medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 10-11

TOPIC TAGS: hypoxia, spirography, electrocardiogram, human physiology

ABSTRACT:

In order to determine the time available for taking countermeasures during a rapid drop in partial oxygen pressure, the resistance of the body to rapidly increasing hypoxia was studied in 28 human subjects by the rebreathing method using a spirograph filled at the start with 8.5 *l* of atmospheric air. The O_2 content of this air decreased as the oxygen was used up; CO_2 was chemically absorbed.

Card 1/3

L 08271-67

ACC NR: AT6036[illegible]

The external appearance of the subjects, their behavior, and reported subjective sensations were monitored as a check on their general condition; data were recorded on conditioned reflex activity, brain biocurrents, motor coordination, the functional state of the cardiovascular and respiratory systems and blood oxygen absorption levels; and studies of the composition of peripheral blood and the functional state of the adrenal cortex were made.

The results showed that rapidly increasing hypoxia produces functional changes leading to loss of consciousness if oxygen is not quickly administered. Reserve time (time from beginning to breathe the hypoxic mixture until the hypoxic mixture is cut off) amounted on the average to 6 min 28 sec (5 min 27 sec to 10 min 02 sec). This was equivalent to an "altitude ceiling" of 10150 m (9100 to 11400 m). The O_2 content in the respired air at the end of the experiment was 4.44% (pO_2 = 31.3 mm Hg); blood oxygen saturation dropped to an average of 53.2% (42% to 64%). Hypoxia symptoms observed during the experiment included: cyanosis of the epidermis and mucosa; dyspnea, drowsiness, impaired handwriting, and sometimes even muscle spasms in the hands. Many subjects complained of respiratory distress, dizziness, dimness of vision, heat, headache, etc.

L 03271-67

The latent period in time required to solve arithmetical problems increased and motor coordination was impaired. Both the time required to solve problems and the number of errors increased more than three-fold over initial data

Three phases were distinguished in EEG changes: 1) suppression of the alpha rythm 2) reactivation of alpha rhythm; 3) onset of slow waves (2 to 4 per inch).

Frequency and depth of respiration and minute volume increased during hypoxia, and the oxygen requirement and O_2 utilization coefficient decreased. Arterial oxygen saturation decreased from 46% to 98% at the start to 49% to 55% at the end of the experiment.

EKG's made during rapidly increasing hypoxia showed a progressive increase in the pulse rate and a decrease in the amplitude of R and T waves.

Peripheral blood composition immediately and one hour after exposure to hypoxia showed increased erythrocyte counts and hemogolobin content. The amount of 17-oxycorticosteroids in the plasma increased from 16 to 17 γ% at the onset of 35.3 to 44.2 γ % during the aftereffect period.

ATD Report 66-116

Card 3/3 SUB CODE: 06 / SUBM DATE: 00May66

L 39285-65 EWT(m)/EPF(c)/EWP(j)/EWA(c)/T Pc-4/Pr-4 RPL JW/RM

ACCESSION NR: AR5003009 S/0081/64/000/020/S035/S035

23
B

SOURCE: Ref. zh. Khimiya, Abs. 20S190

AUTHOR: Peshekhonova, A. L.; Kamenskiy, I. V.; Korshak, V. V.; Solodkin, L. S.; Shvachenko, Yu. V.

TITLE: A study of the formation of furfural polymers in the presence of hexamethylenetetramine

CITED SOURCE: Tr. Mosk. khim.-tekhnol. in-ta im. D. I. Mendeleyeva, vyp. 42, 1963, 137-142

TOPIC TAGS: furfural polymer, hexamethylenetetramine polymer, polymer fractionation, plastics synthesis, polymer spectroscopy

TRANSLATION: The authors studied the mechanism of formation of polymers based on 99.95% pure hydrolytic furfural and 99.98% pure hexamethylenetetramine at a mole ratio varying from 30:1 to 3:1. They found that the solid polymers PG-2, PG-1 and PG-10, obtained in > 80% yield at the boiling point of the reaction mixture and a furfural:hexamethylenetetramine ratio of 15:1, 6:1 and 3:1, re-

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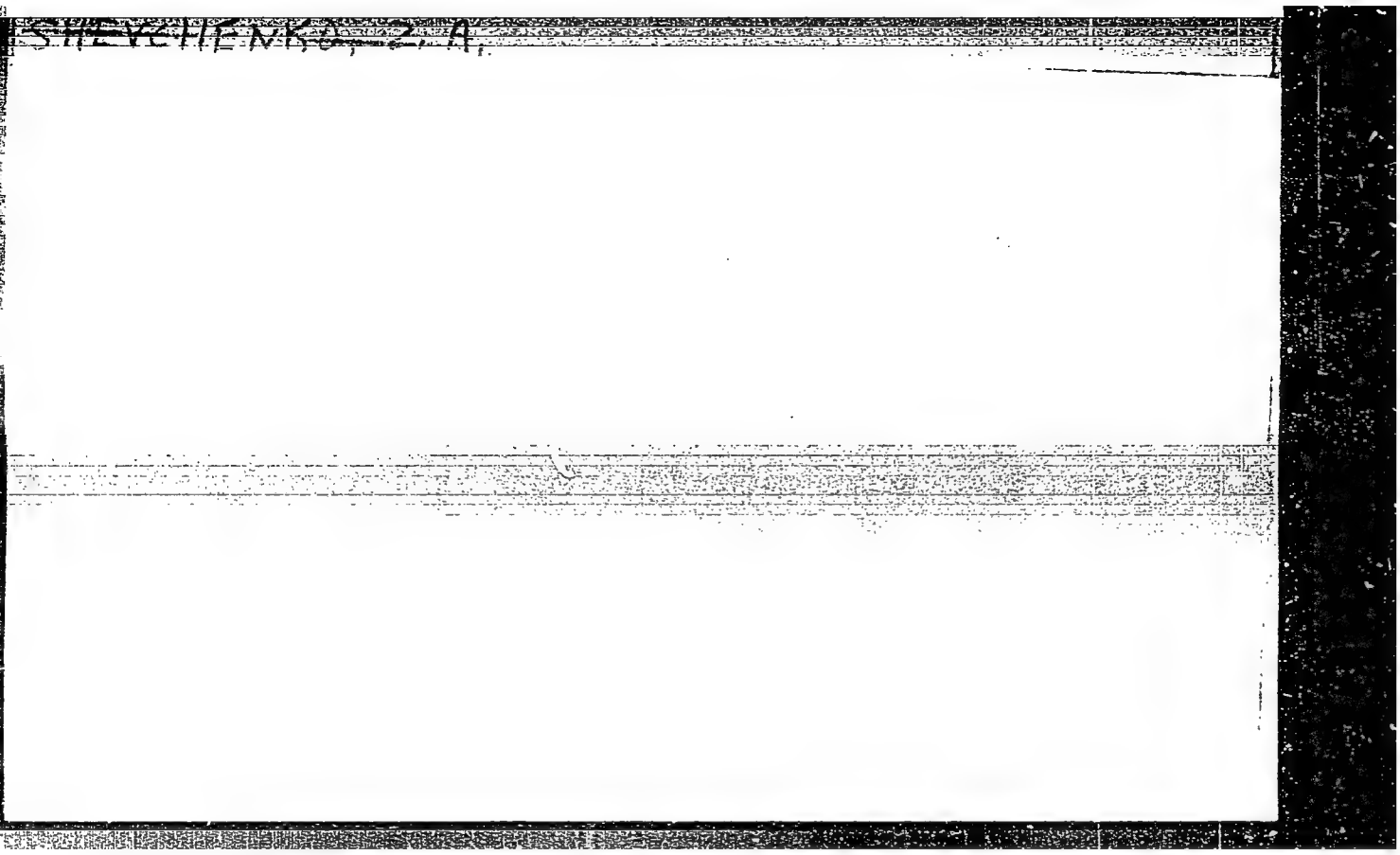
L 38285-65

ACCESSION NR: AR5003009 0

spectively, are of considerable interest for the manufacture of plastics. The polymers were purified and separated into fractions by the technique of fractional solution in petroleum ether, ethanol, acetone and dioxane followed by precipitation with water. The infrared and ultraviolet spectra indicate the presence of an unchanged furan ring, bound in the polymers in the α-position, as well as keto groups in FG-2 and FG-1 and amido groups in FG-10 (see RZhKhim, 1964, 5N5). L. Kotlyarevskaya.

SUB CODE: GC, OC ENCL: 00

Card 2/2 fb



FAVORSKAYA, T.A.; SHEVCHENKO, Z.A.

Synthesis and study of the transformations of glycols of the δ-series. Part 1: Transformations of 2,3,6-trimethyl-5-keto-3-hepten-2,6-diol. Zhur. ob. khim. 31 no.8:2526-2533 Ag '61. (MIRA 14:8)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.
(Glycols)

FAVORSKAYA, T.A.; SHEVCHENKO, Z.A.

Synthesis and conversions of glycols of the δ -series. Part 2: Conversions of 3,4,7-trimethyl-6-keto-4-nonene-3,7-diol. Zhur. ob. khim. 32 no.1:46-50 Ja '62. (MIRA 15:2)

1. Leningradskiy gosudarstvennyy universitet.
(Glycols)

FAVORSKAYA, T. A.; SHEVCHENKO, Z. A.

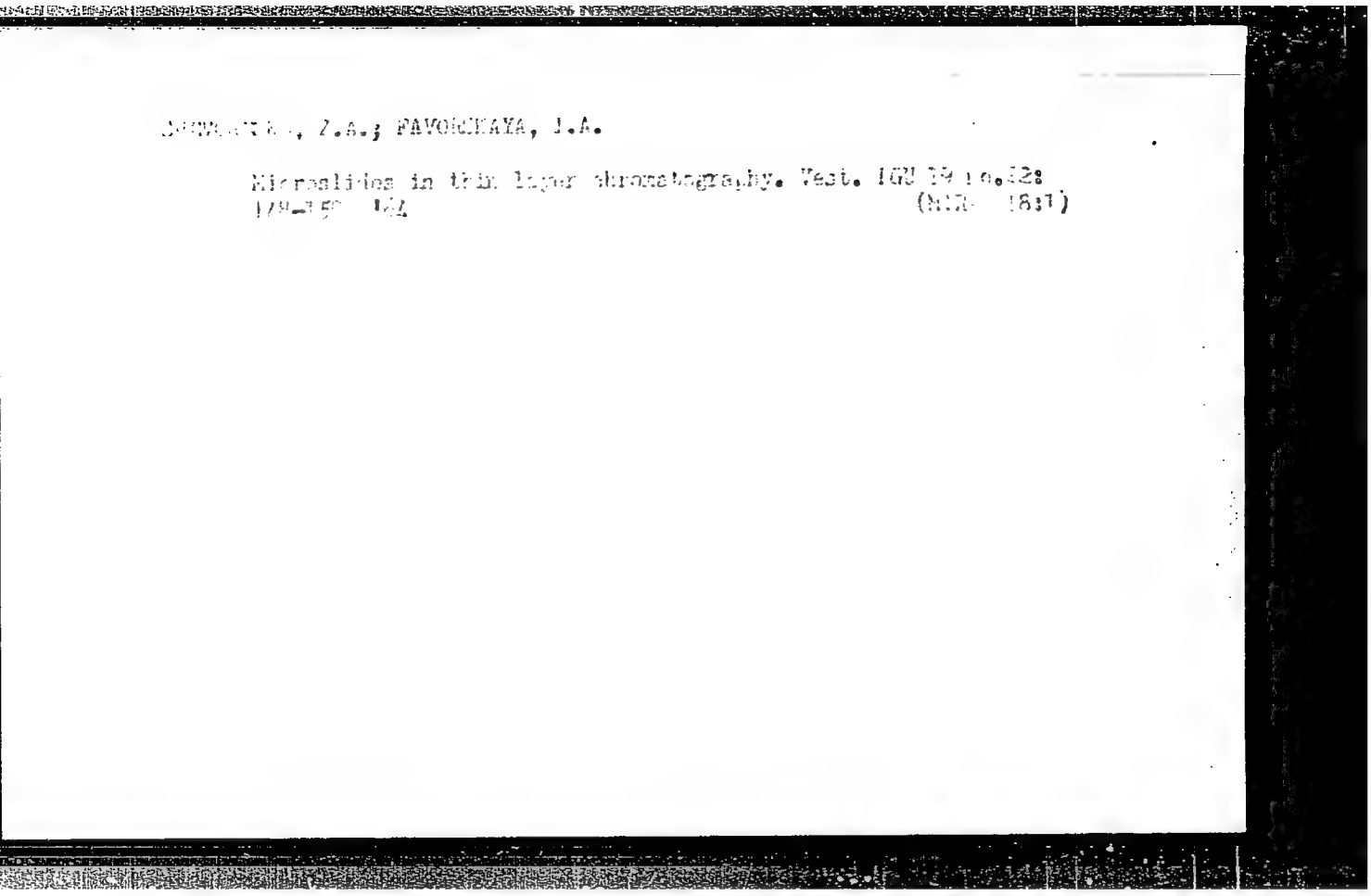
Synthesis and transformations of glycols of the ∫ -series.
Part 3: Condensation products of 1-acetylcyclohexan-1-ol.
Zhur. ob. khim. 32 no.12:3918-3922 D '62.
(MIRA 16:1)

1. Leningradskiy gosudarstvennyy universitet imeni A. A.
Zhdanova.

(Cyclohexanol) (Condensation products)

SHEVCHENKO, Z. A.; FAVORSKAYA, I. A.

Thin-layer chromatography of 2, 4-dinitrophenylhydrazones of isomeric ketones. Vest. LGU 19 no.10:107-112 '64.
(MIRA 17:7)



[illegible], Z.A.; PAVOLCHAYA, I.A.

Microplates in thin layer chromatography. Vest. LGU 19 no.22
1964 [illegible] (MIRA 18:1)

SHEVCHENKO, Z.A.; FRANTSOV, V.P.; POTAPOVA, V.P.; SPEKTOR, Ya.I.

Nature of large nonmetallic inclusions in ball bearing electric steel. Stal' 25 no.5:452-454 My '65. (MIRA 18:6)

1. Zavod "Dneprospetsstal'".

[redacted], A. P.

[redacted], A. P.: "Methods of increasing double-petaledness in stock (Matthiola incana R.Br.)". Leningrad, 1955. Acad Sci USSR. Botany Inst imeni V. L. Komarov. (Dissertation for the Degree of Candidate of BIOLOGICAL Sciences)

SO: Knizhnaya Letopis' No. 51, 10 December 1955

SHEVCHENKO, Z.D.

State of the assortment of flowering plants in the U.S.S.R. and outlook for establishing certified assortments. Trudy Bot.inst. Ser.6 no.7:436-437 '59. (MIRA 13:4)

Ukrainskaya opytnaya stantsiya tsvetochnykh i dekorativnykh rasteniy, Kiyev.
(Floriculture)

SHEVCHENKO, Z. G., TIMOFEYEV, M. A., STRAKHANOVA, E. V. and USHMAROVA, N. N.

"Ixodid Ticks are Carriers and Vectors of Tularemia in Krasnodar Kray."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Krasnodar Kray Sanitation and Epidemiology Station and the Rostov-on-Don Antiplague Institute

SHEVCHENKO, Z. N.

USSR/Chemistry - Chlorosulfonation Aug 49
Anilides

"The Mechanism of the Chlorosulfonating of Acylanilides," L. S. Solodar, Z. N. Shevchenko, Cen Lab, "Akrikhin" Plant, 8 pp

"Zhur Prik Khim" Vol XXII, No 8

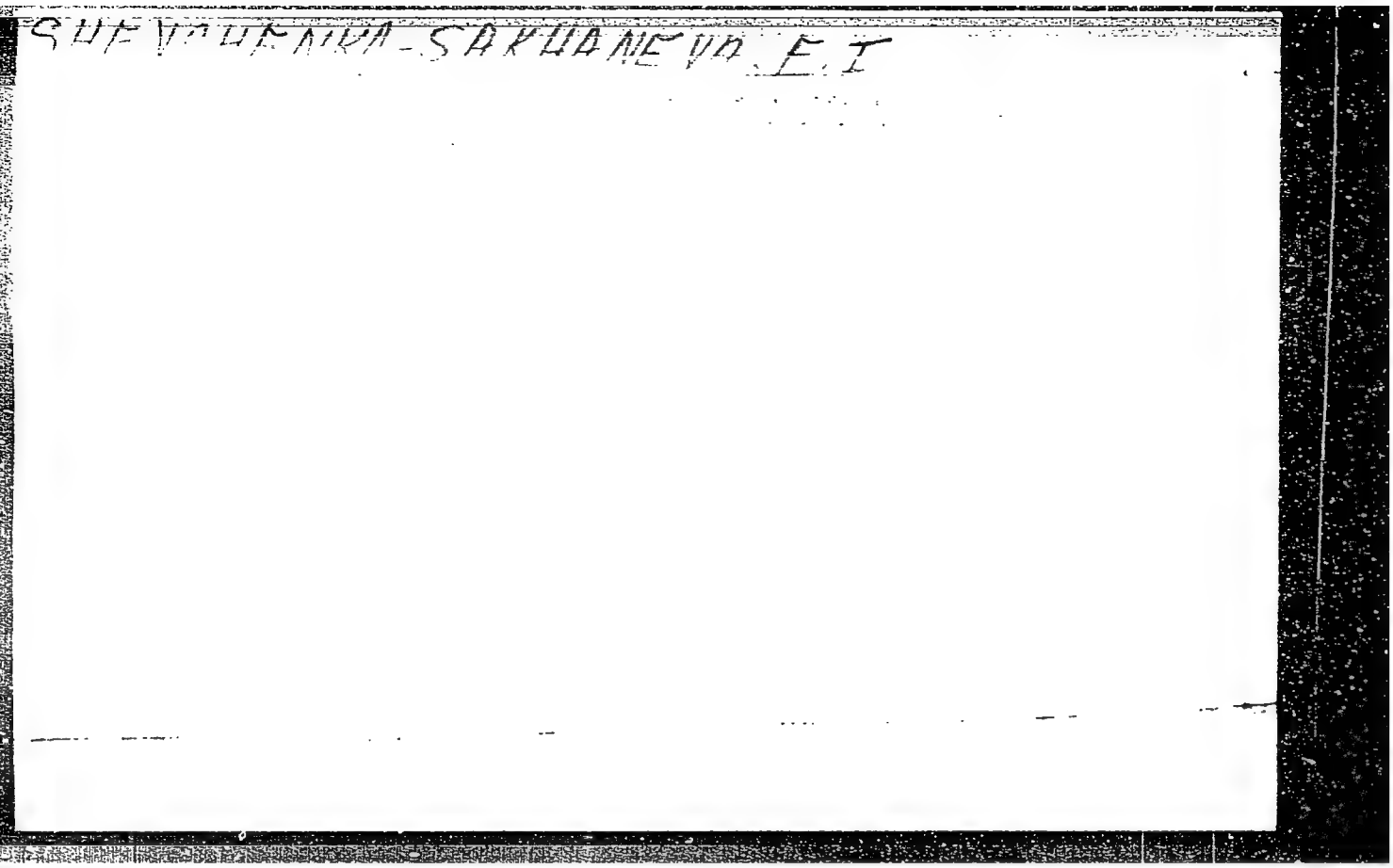
Studied the three-stage dynamics of chlorosulfonating of acetanalide and phenylurethylan at 50, 60, 70, and 90° C: the formation of the acylanilide sulfo acid, its subsequent conversion into acylanilide sulfo chloride, and the acidolysis of the acylamino groups. Lowered temperatures decreased the acidolysis of the acylamino groups, resulting in greater yields of sulfo chloride. Submitted 15 Mar 49

PA 67/49T64

DYKHANOV, M.M.; SHEVCHENKO, Z.N.

Synthesis of diphenyl methane-4, 4-disulfamide. Med.prom. 13 no.7:35-37 Jl '59. (MIRA 12:10)

1. Khimiko-farmatsevticheskiy zavod "Alkaloid".
(DIBENZENESULFONAMIDE)



SOV/105-59-8-16/28

8(2)
AUTHOR: Shevchenko-Vinogradov, V. P.

TITLE: The Geometrical Dimensions and the Dielectric Strength of the Insulation of Sector Conductors

PERIODICAL: Elektrichestvo, 1959, Nr 8, pp 69-72 (USSR)

ABSTRACT: It proves to be very difficult to calculate the exact geometrical dimensions of sector conductors, as the width b, the height h, the radius R of the cable composed of single wires, the circumference L of the sector with the rounded-off edges (two with the radius r_1 and the central one with the radius r_2) do not only depend upon these radii, but also upon phase insulation thickness and the coefficient of close packing. r_1 and r_2 should not be below 0.5 mm, which is the only limitation imposed by GOST 6515-55. It is shown how these dimensions should be chosen if the thickness of the phase insulation and the rated voltage of the cable vary, and to what degree these variations have a retroactive effect upon the dimensions of the sector conductors. Formulas are derived by which the dimensions of the sector conductor can be determined. This calculation is facil-

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The Geometrical Dimensions and the Dielectric Strength of the Insulation of Sector Conductors

itated by the nomograms presented. Summarizingly the following is stated: 1) The GOST specifications for triplex cables with a common insulation must give not only the lower limits of r_1 and r_2, but also the coefficients of close packing. 2) If the dielectric strength of the insulation of the sector conductors is taken into account, the rounding-off radii cannot be assumed independently of one another. For triplex cables with a common insulation $\frac{r_2}{r_1} = 1.65$ holds, for every cross section and rated voltage of the cable and without impairing the dielectric strength of the conductor insulation. 3) Production materials may be saved not only by using drawn and closely packed conductors, but also by giving r_1 and r_2 optimum values. This circumstance is not sufficiently realized in cable works. 4) This method allows to calculate with sufficient accuracy and simplicity sector conductors for all standard cross sections, taking into account the dielectric strength of their insulation

The Geometrical Dimensions and the Dielectric Strength of the Insulation of Sector Conductors

and the minimum requirements of material. There are 6 figures, 1 table, and 3 Soviet references.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Institute of Power Engineering)

SUBMITTED: April 7, 1959

GUBIN, Nikolay Mikhaylovich; SKAFIONOV, Onik Sergeyevich; SHEVCHENKOV, M.A., otv. red.; SIDOROVA, T.S., red.

[Economics, organization and planning in regional communication centers] Ekonomika, organizatsiia i planirovanie v raionnykh uzlakh sviazi. Moskva, Sviaz', 1964. 226 p. (MIRA 17:9)

S/250/62/006/007/002/002
I032/I242

AUTHORS: Gordash, Yu. T., Shevchik, A.M., Laryutina, E.A., Pavlyuchenko, K.V.

TITLE: The groups of sulfur-containing organic compounds in the benzene-kerosene fractions of Mukhanov oil

PERIODICAL: Akademiya nauk BSSR. Doklady, v.6, no.7, 1962, 442-444

TEXT: Commercial petroleum from Mukhanov was fractionated into 12 fractions, the highest fraction boiling between 325° and 350°. The weight percentages of sulfur contained in mercaptanes (mercaptane sulfur), sulfides (sulfide sulfur), disulfides (disulfide sulfur) and other compounds (remainder sulfur) were determined for each fraction. Fractions boiling up to 100° contained mainly remainder sulfur, whereas fractions boiling between 100° and 225° contained mainly sulfide

Card 1/2

S/250/62/006/007/002/002
I032/I242

The groups of sulfur containing ...

sulfur. In no fraction did the mercaptane sulfur and disulfide sulfur account for more than 10% of the total sulfur. There is 1 figure and 2 tables.

ASSOCIATION: Institut fiziko-organicheskoy khimii AN BSSR
(Institute of Physical-Organic Chemistry, AS BSSR)

PRESENTED: by B.V. Yerofeyev, Academician AS BSSR

SUBMITTED: December 12, 1961

Card 2/2

SHEVCHIK, A.M.; YEMEL'YANOV, N.P.

Group composition of organosulfur compounds in gasoline-kerosine fractions of Yel'sk petroleum. Dokl. AN BSSR 9 no.8:523-525 Ag '65. (MYRA 18:10)

1. Institut fiziko-organicheskoy khimii AN BSSR.

[illegible], K.V. [Kamilychenka, K.V.]; SHEVCHIK, A.V. [Shevchyk, A.V.]; [illegible], Yu.T. [Hordash, Yu.T.]; [illegible] [Kalekhina, I.K.]

Practice of the catalytic transformation of octylmercaptan. Vesti AN BSSR. Ser. fiz.-tekh. nav. no.4:78-84 '63. (MIRA 17:12)

L 13761-65 EWT(m)/EPF(c)/T Pr-4 RM/WE

ACCESSION NR: AP4045693 S/0250/64/008/008/0526/0529

AUTHOR: Pavlyuchenko, K. V.; Shevchik, A. M.; Yemel'yanov, N. P.

TITLE: Adsorption of mercaptans and sulfur compounds from Mukhanovo crude oil on 5A and 13X zeolites

SOURCE: AN BSSR. Doklady*, v. 8, no. 8, 1964, 526-529

TOPIC TAGS: desulfurization, adsorption, mercaptan, sulfide, disulfide, Mukhanovo crude oil, 5A zeolite, 13X zeolite

ABSTRACT: A study has been made of the adsorption of individual normal primary mercaptans and other sulfur compounds from Mukhanovo crude on 5A and 13X zeolites. Adsorption of octyl- and nonyl-mercaptan, sulfides, and disulfides from the 240—360C cut of Mukhanovo crude was carried out on the 5A 202—175 and 5A 202-247 zeolites at 240—350C and on the 13X 202-208 zeolite at 222—261C, in a stream of nitrogen. The zeolites were regenerated at 375—380C in a stream

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of hydrogen. It was found that the 5A 202-175 and 13X zeolites adsorb mercaptans (90% on 5A 202-175), sulfides, and disulfides, while the 4A 202-247 zeolite does not. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: Institut fiziko-organicheskoy khimii AN BSSR (Institute of Physical Organic Chemistry, AN BSSR)

SUBMITTED: 15Apr64 ATD PRESS: 3131 ENCL: 00

SUB CODE: GC, FP NO REF SOV: 005 OTHER: 003

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ARISTOV, Yuriy Kapitonovich; KRAKOVSKIY, I.I., redaktor; SHEVCHIK, D.B., retsenzent; KOZAKEVICH, V.I., retsenzent; SHLENNIKOVA, Z.V., redaktor; BEGICHEVA, M.N., tekhnicheskiy redaktor.

[Repair of dredging apparatus and ways of impoving the wear-resistance of the parts] Remont dnouglubitel'nykh snariadov i puti povysheniia iznosostoikosti ikh detalei. Moskva, Izd-vo "Rechnoi transport," 1955. 283 p. (Dredging machinery) (MLRA 9:4)

B.

SHEVCHIK, D., inzh.

New types of earth scows. Mor. flot 18 no. 6:15-16 Je '58.
(MIRA 11:7)

1. TSentral'noye proizvodstvenno-konstruktorskoye byuro-8.
(Scows)

SHEVCHIK, D., inzh.

Auxiliary boats for the dredger fleet. Mor. flot 19 no.5:34-36 My '59. (MIRA 12:7)

1.TSentral'noye proyektno-konstruktorskoye byuro No.8.
(Work boats) (Dredging)

SVITKO, A.L., inzh.; SHEVCHIK, D.B., inzh.

Assembly of equipment using a simplified assembly bridge crane. Mont. i spets. rab. v stroi. 24 no.10:19-20 '62. (MIRA 15:10)

1. Severo-Kavkazskiy otdel TSentral'nogo proyektno-konstruktorskogo otdeleniya Glavnogo upravleniya po montazhu tekhnologicheskogo oborudovaniya i proizvodstvu montazhnykh rabot Ministerstva stroitel'stva SSR.

(Cranes, derricks, etc.)

VOROB'YEV, V.D., inzh.; SHEVCHIK, D.P., inzh.

Crane or beam for moving along circular tracks. Mont. i spets. rab. v.stroi. 24 no.1:31-32 Ja '62. (MIRA 15:7)

1. TSentral'noye proyektno-konstruktorskoye otdeleniye Vsesoyuznogo tresta po proyektirovaniyu, montazhu i proizvodstvu oborudovaniya vnutrizavodskogo transporta, kanatnykh podvesnykh dorog i kabel'kranov. (Cranes, derricks, etc.)

577.3

AUTHOR: Shevchik, F.; Vetterl', V.

TITLE: Complex dielectric permittivity of solutions in the centimeter wave band

SOURCE: Biofizika, v. 10, no. 3, 1965, 441-444

TOPIC TAGS: microwave, SHF, dielectric permittivity, microwave dosimetry, glucose, water, gelatin, tissue hydration

ABSTRACT: A method for measuring the dielectric permittivity of various solutions in the centimeter wave band is described. Diagrams of the principles and apparatus used are shown in Figs. 1 and 2 of the Enclosure. The equations derived from the [illegible] with the figures for the [illegible] section of dielectric permittivity [illegible] coefficient of" are given in the following equations:

$$\varepsilon' = (\beta_2^2 - \alpha_2^2)/\beta_3^2;$$

$$\varepsilon'' = 2\alpha_2\beta_2/\beta_3^2.$$

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Using the system elaborated in the figures, it was possible to achieve an evaluation accuracy greater than 0.5% with an accuracy of ε' measurement of ±3% and ε" meas- [illegible] investigating distilled water irradiated with 3.2-cm waves at a [illegible] The method [illegible] was employed in the measurement of various [illegible] solutions as a function of their concentration. Some results [illegible] shown in Figs. [illegible] The tests showed that the dielectric [illegible] of various organic and inorganic solutions depends mainly on their [illegible] in determining the amount of free and bonded [illegible] molecules. This contactless method of [illegible] has great advantages [illegible], placing the solution to be measured in the [illegible] because the solution does not come into contact with the wave- [illegible] makes it much easier to clean the waveguide and to maintain a constant solution temperature; second, the method is effective in measuring the dielectric permittivity of substances which expand in the solute as well as in measuring solid [illegible] dielectrics. However, the method is limited insofar as dielectrics [illegible] losses are concerned. In biophysical investigations, this method can be [illegible] of body fluids, cell suspensions, and [illegible] this method might lead to establishing a [illegible] by means of hydration. Orig. art. has: 4 figures and [illegible] formulas. (BB)

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ASSOCIATION: Institut biofiziki AN ChSSR, Brno (Czechoslovakia) (Institute of Bio-
[illegible], AN ChSSR

SUBMITTED: 07Oct64 ENCL: 04 SUB CODE: EC, LS

NO REF SOV: 003 OTHER: 010 ATD PRESS: 4043

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SHEVCHIK, V.

Perfect production base is a foundation for the development of road construction in the province. Avt.dor. 27 no.1:12 Ja '64. (MIRA 17:4)

1. Nachal'nik dorozhnogo upravleniya Vladimirskoy oblasti.